

KUNKLE

ASME Section VIII, Air/Gas Cryogenic, “UV” National Board Certified, Safety Valves

Features

- Unique three-piece disc assembly (with Teflon® seat/seal) offers superior leak-free performance over the entire pressure/temperature operating range.
- Warn ring offers precise opening with minimum pre-open or simmer.
- Pivot between disc and spring corrects for all misalignment and compensates for spring side thrust.
- All adjustments are factory sealed to prevent tampering and disassembly.
- Each Kunkle valve is tested and inspected for pressure setting and leakage.

Model Descriptions

Model 189: Bronze housing with Stainless Steel (SS) trim (nozzle and disc) with Teflon® seat/seal in disc. Plain lift lever.

Model 189C: Same as model 189 except pressure tight cap for gas service only. Suitable for maximum back pressure of 50 psig.¹

Model 189P: Same as model 189 except pressure tight packed lift lever. Suitable for maximum back pressure of 50 psig.¹

Model 363: Bronze housing with SS trim (nozzle and disc) with Teflon® seat/seal in disc. Plain lift lever. 1000 psig maximum set pressure.

Model 363C: Same as model 363 except pressure tight cap for gas service only. Suitable for maximum back pressure of 50 psig.¹ 1000 psig maximum set pressure.

Model 363P: Same as model 363 except pressure tight packed lift lever. Suitable for maximum back pressure of 50 psig.¹ 1000 psig maximum set pressure.

Model 389C: All SS with Teflon® seat/seal in disc. Pressure tight cap for gas service only. Suitable for maximum back pressure of 50 psig.¹



Model 189



Model 389P: Same as model 389C except pressure tight packed lift lever. Suitable for maximum back pressure of 50 psig.

Applications

- Cryogenic “cold” and liquefied air, oxygen and gas service.
- Multi-stage air and gas compressors, intercoolers, aftercoolers and receivers.
- Thermal expansion relief and/or full rated capacity discharge.
- Air, gas and liquefied gas lines and systems.

Pressure and Temperature Limits

Model 363:
50 to 1000 psig
-320° to 350°F

Model 189:
1000 to 2500 psig
-320° to 350°F

Model 389:
50 to 2500 psig
-320° to 350°F

Note

1. Back pressure increases set pressure on a one to one basis, and reduces capacity. Back pressure in excess of 10% of set pressure is not recommended.

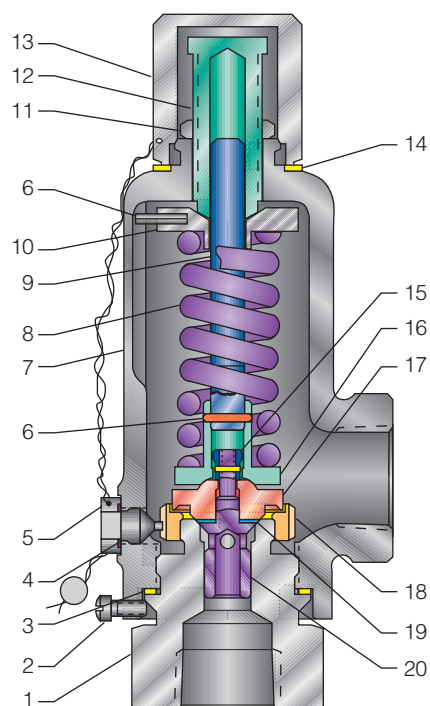
tyco Flow Control

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Parts and Materials

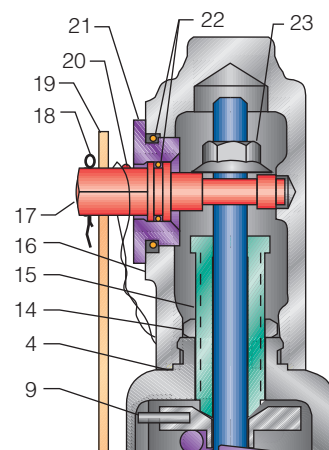
Models 189C, 363C and 389C

No.	Part Name	189C and 363C	389C
1	Nozzle	SS SA479-316	SS SA479-316
2	Body Lock Screw	Brass B16	SS Commercial
3	Body Gasket	Teflon®	Teflon®
4	Lock Screw Gasket	Teflon®	Teflon®
5	Lock Screw-Ring	Brass B16	SS A582-303
6	Spring Pin ¹	SS Commercial	SS Commercial
7	Body	Bronze SB-62	SS SA351-CF8M
8	Spring	SS A313-304	SS A313-304
9	Stem	SS A582-303	SS A582-303
10	Top Spring Step	SS A582-303	SS A582-303
11	Jam Nut	Brass B16	SS A582-303
12	Compression Screw	SS A582-303	SS A582-303
13	Cap	Brass B16	SS SA479-316
14	Cap Gasket	Teflon®	Teflon®
15	Retainer Nut	SS 582-303	SS A582-303
16	Bottom Spring Step	SS A582-303	SS A582-303
17	Disc	SS A582-303	SS A582-303
18	Regulator Ring	Brass B16	SS A743-CF8M
19	Seat	Teflon®	Teflon®
20	Guide	SS A582-303	SS A582-303



Models 189P, 363P and 389P With Packed Lift Lever

No.	Part Name	189P, 363P	389P
9	Spring Pin	SS Commercial	SS Commercial
10	Body	Bronze SB-62	SS SA351-CF8M
11	Spring	SS A313-304	SS A313-304
12	Stem	SS A582-303	SS A582-303
13	Spring Step - Top	SS A582-303	SS A582-303
14	Jam Nut	Brass B16	SS A582-303
15	Compression Screw	SS A582-303	SS A582-303
16	Cap	Bronze B584 Alloy 84400	SS A743-CF8M
17	Lift Cam	SS A473-CF8M	SS A743-CF8M
18	Cotter Pin	Steel Commercial	Steel Commercial
19	Lever	Steel A108, Zinc Plated	Steel A108, Zinc Plated
20	Drive Screw	SS Commercial	SS Commercial
21	Retainer Nut	Brass B16	SS A479-316
22	O-ring	BUNA-N	BUNA-N
23	Lift Nut	Steel A108, Zinc Plated	Steel A108, Zinc Plated

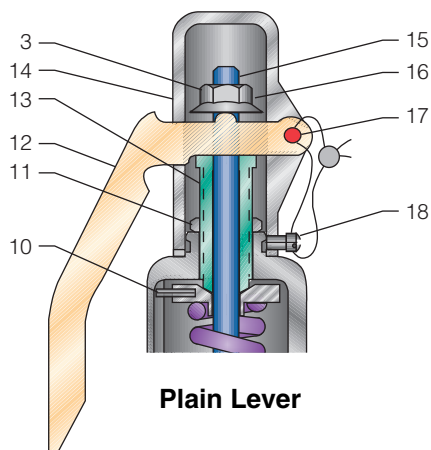


Packed Lever

Notes

1. Upper spring pin available on Models 189C and 389C.

Parts and Materials



Plain Lever

Models 189 and 363 With Plain Lever

No.	Part Name	189, 363
10	Spring Pin ¹	SS Commercial
11	Jam Nut	Brass B16
12	Lever	Steel A109, Zinc Plated
13	Compression Screw	Brass B16
14	Cap	Aluminum, SB85 A380.0
15	Stem	SS A582-303
16	Lift Nut	Steel A108, Zinc Plated
17	Rivet	Steel Commercial
18	Lock Screw	SS Commercial

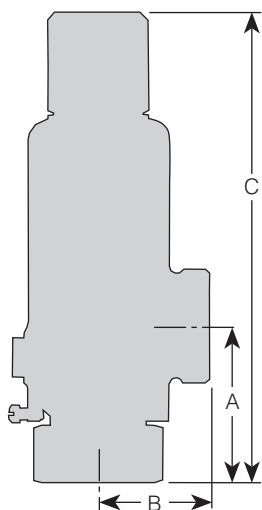
Note

1. Spring pin available on Models 189 and 389 only.

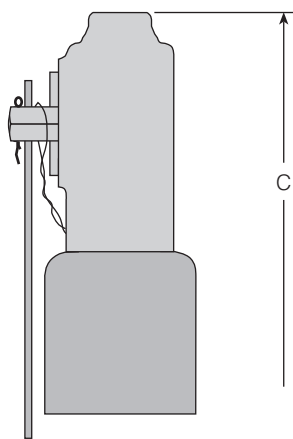
Specifications

Inlet	Size Outlet	Dimensions, in					Weight (lb)
		A	B	C Cap	C Plain Lever	C Packed Lever "P"	
1/2" or 3/4"	3/4"	27/16	13/4	73/16	9	8 1/2	5

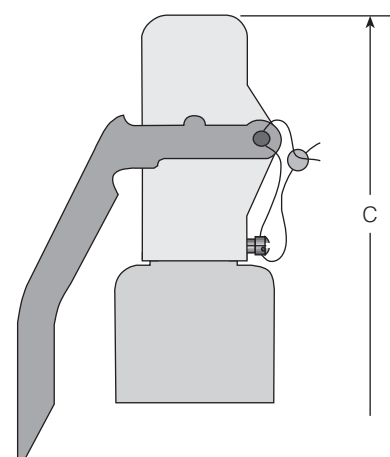
Dimensions are for reference only.



Models 189 and 363



**Models 189P, 363 and 389P
(packed lift lever)**



**Models 189 and 363
(plain lever)**

Kunkle Safety and Relief Products

Models 189, 363 and 389

Model Number/Order Guide

Model Number Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Example	0	1	8	9	—	D	0	1	—	K	H	0	1	0	0

Model

0189
189C
189P
0363
363C
363P
389C
389P

Inlet Size

C - 1/2"
D - 3/4"

Variation (01 to 99)

01 - Catalog standard

Design Revision

Indicates non-interchangeable revision. Dash (-) if original design.

Spring Material

H - 304 SS

Set Pressure

Model 189 - 1000 psig (1000) to 2500 psig (2500)

Model 363 - 50 psig (0050) to 1000 psig (1000)

Model 389 - 50 psig (0050) to 2500 psig (2500)

Capacities for ASME Section VIII Air, (SCFM)

Set Pressure (psig)	Capacity (SCFM)
50	38
100	68
150	98
200	128
250	158
300	188
350	218
400	248
450	278
500	308
550	338
600	368
650	397
700	427
750	457
800	487
850	517
900	547
950	577
1000	607
1050	637
1100	667
1150	697
1200	727
1250	757
1300	787
1350	817
1400	847
1450	877
1500	907
1550	937
1600	967
1650	997
1700	1027
1750	1057
1800	1087
1850	1117
1900	1146
1950	1176
2000	1206
2050	1236
2100	1266
2150	1296
2200	1326
2250	1356
2300	1386
2350	1416
2400	1446
2450	1476
2500	1506

KUNKLE

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